Statement of

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before the

Subcommittee on Veterans Affairs, HUD, and Independent Agencies
Committee on Appropriations
United States House of Representatives

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Mr. Chairman, Members of the Subcommittee, I am pleased to appear before you today to discuss the Office of Science and Technology Policy's (OSTP) budget request for Fiscal Year 2003.

When I testified before the House Committee on Science prior to my confirmation by the Senate last October, I expressed my desire to "form a close and productive relationship with Congress, which has long provided bipartisan and enduring support of our world-leading science and engineering enterprise. The counsel and support of Members of Congress is an essential element of continued U.S. leadership across the frontiers of scientific knowledge." I look forward to working with you, Mr. Chairman, and your Subcommittee, to demonstrate this commitment to science and engineering excellence once again this year. President Bush has set forth an agenda for science funding in the forthcoming fiscal year that takes advantage of important opportunities for discovery and development, and also sustains the basic machinery of research and development that will be necessary for continued national leadership in science and technology.

Last October I also referred to the fact that we must make important choices together because we have neither unlimited resources, nor a monopoly of the world's scientific talent. I continue to believe that wise choices among the multitudes of possible research programs are necessary, and that we must decide which programs to launch, encourage, and enhance and which ones to modify, reevaluate, or redirect in keeping with our national needs and capabilities. The President's FY 2003 Budget includes principles that will improve the management of the Nation's science and technology enterprise, taking advantage of best practices, and emphasizing the importance of good planning, execution, reinforcement of good performance, and changing poor performance. I look forward to working with Congress to ensure that the significant investment, now over $100 billion, provided by the federal government to the support of science is deployed to optimal effect.

THE OSTP MISSION

In support of our Nation's science and technology priorities, OSTP has two primary responsibilities: advising the President on S&T; and providing leadership and coordination for our government's role in the national S&T enterprise.

In the 1950's, in response to Soviet advances, highlighted by the launch of Sputnik, President Eisenhower saw the need for expert S&T counsel, and he invited James Killian, then president of MIT, to Washington to serve as the head of the first President's Science Advisory Committee, an OSTP predecessor. Since then our Nation's Presidents have drawn on the expertise of our office for S&T policy advice, and I see this as a contribution that will continue to grow in value as the challenges we face become increasingly complex.

Within our agency, a small staff of professionals analyzes developments at the frontiers of scientific knowledge, and aids the President in shaping policy. OSTP also provides scientific and technical information and recommendations to the Vice President, the White House Offices, the Executive Branch Agencies, and Congress.

A second responsibility of OSTP is to provide leadership and coordination across the Administration. OSTP plays this role for a range of Administration priorities, including national security and global stability, environment, science, and technology. The National Science and Technology Council (NSTC) has been an invaluable partner with OSTP in developing interagency evaluations and forging consensus on many crucial S&T issues.

OSTP Budget Request

I ask today for your continued support of OSTP's role in coordinating S&T policy for the Executive Branch and for our Nation at large. OSTP's budget request of $5,368,000 and 40 full-time equivalent (FTE) positions in Fiscal Year 2003 represents a net increase of $101,000, or 1.9 percent, over our Fiscal Year 2002 enacted budget. The number of FTE's remains unchanged.

The requested amount would allow OSTP to fulfill its responsibilities in a White House committed to an increased role for science and technology in achieving national goals, including strengthening the economy, creating high quality jobs, combatting terrorism, defending the homeland, protecting the environment, and improving health care.

The requested FY 2003 budget will support the Director and two Associate Directors plus a staff of seasoned professionals with diverse training and experience. Our requested increase is essential to continue to provide quality support to the President and information to the Congress. Since personnel costs constitute the largest portion of OSTP's budget, our FY 2003 budget request reflects our commitment to operate more

efficiently and cost-effectively without compromising the essential element of a top caliber science and technology agency – high quality personnel.

National Science and Technology Council

To meet the Administration's priority S&T goals, we must combine the efforts and the expertise of multiple agencies. OSTP personnel support the work of the National Science and Technology Council (NSTC), a Cabinet-level Council that sponsors interagency initiatives to advance key S&T objectives.

Our distributed system of research funding also places a premium on coordination among complementary agency programs. The NSTC improves such coordination.

NSTC membership includes Cabinet Secretaries, heads of science and technology agencies, and key White House officials with significant S&T responsibilities. In the process of generating specific budgetary and policy recommendations, NSTC routinely reaches beyond the federal government to seek input from a wide spectrum of stakeholders in the public and private sectors.

An important objective of the NSTC is to guide individual agency budget priorities for R&D and to orient the S&T spending of each Federal mission agency toward achieving national goals. To this end, in late 2001 NSTC established an interagency Task Force on Antiterrorism Research and Development with several working groups to address broad categories of issues. The current working groups focus on:

- Chemical and Biological Detection and Response
- Radiological and Nuclear Detection and Response
- Social, Behavioral, and Education Sciences

Another working group – a rapid-response team – serves as an action-oriented team to grapple with emergencies that may arise.

Other, standing NSTC committees along with ad hoc working groups within the NSTC, provide an effective forum to resolve crosscutting issues such as nanoscale science, engineering, and technology; information technology R&D; and plant genome research.

The President's Council of Advisors on Science and Technology

As Director of the Office of Science and Technology Policy, I co-chair the President's Council of Advisors on Science and Technology (PCAST) with Floyd Kvamme, a leading Silicon Valley venture capitalist and a founding member of TechNet. The PCAST, which consists of distinguished individuals from industry, education, research institutions, and other non-governmental organizations, serves as the highest-level private sector advisory group for the President and the NSTC. President Bush

established the President's Council of Advisors on Science and Technology (PCAST) to advise the President on matters involving S&T and to assist the NSTC in securing private sector involvement in its activities.

President George Bush originally established PCAST in 1990 to enable the President to receive advice from the private sector and academic community on technology, scientific research priorities, and math and science education.

The organization follows a tradition of Presidential advisory panels on science and technology dating back to Presidents Eisenhower and Truman. The council members, distinguished individuals appointed by the President, are drawn from industry, education, and research institutions, and other nongovernmental organizations.

PRESIDENT BUSH'S FY 2003 R&D BUDGET

Shortly after I officially became the Director of OSTP at the end of October, the Director of the Office of Management and Budget invited me to attend and participate in the internal OMB decision-making sessions involving science programs. This series of meetings gave me a greater appreciation for the issues and an opportunity to represent the science perspective on important aspects of the forthcoming budget, such as increased accountability and performance measures for the R&D agencies. Following these meetings, my office has continued to work closely with OMB to share information and develop a mutual understanding of the complex issues involved in establishing the Nation's science and technology budgets.

As you well know, agency budget proposals are submitted to OMB in mid-September for their review. The terrorist attacks on September 11 dramatically changed the context for this budget. The attacks laid bare vulnerabilities in our physical security and exacerbated weaknesses in our economy. The priorities of the Nation drastically changed in a matter of a few hours.

The budget reflects the change in priorities by focusing on three primary goals:

- Winning the war on terrorism;
- Protecting the homeland;
- Reviving our economy.

Recognizing that science must play a role in these priorities, the President provides for an unprecedented level of investment in federal R&D, marking the first time in history that a President has requested an R&D budget greater than $100 billion. The precise figure is $111.8 billion, up 8 percent overall from last year – the largest requested increase for R&D in over a decade.

The R&D budget is an imperfect measure of support for traditional science and technology activities. Another compilation, proposed originally by the National

Academy of Sciences to highlight the federal investment in research programs central to the creation of new knowledge, is called the Federal Science and Technology Budget. In this "FS&T" portfolio, the President's budget is up 9 percent. The FS&T activities account for nearly all of federal basic research, over 80 percent of federal applied research, and about half of civilian development.

Mr. Chairman, this is a good budget for science, and I look forward to working with Congress to see it successfully enacted. These science and technology investments will enable the Administration to: enhance homeland defense, national security and global stability; promote long-term economic growth that creates high-wage jobs; sustain a healthy, educated citizenry; harness information technology; improve environmental quality; and maintain world leadership in science, engineering, and mathematics. Let me now direct your attention to some specifics within this budget.

Interagency Initiatives

The budget increases funding for a number of priority research areas that require multi-agency efforts. Information technology, nanotechnology, and health research continue to be high priorities for our Nation. The past year has also seen an increase in priority for climate change R&D. After the events of September 11th, antiterrorism efforts naturally lead the list.

- **Antiterrorism**: Our success in preventing, detecting, and responding to terrorist activities, over the long term, will depend on science and technology. The President's FY 2003 Budget continues the Administration's strong support of research and development to counter emerging terrorist threats by increasing R&D funding for homeland security and combating terrorism (including protecting critical infrastructure) from nearly $1 billion in 2002 to an estimated $3 billion in 2003.

- **The National Nanotechnology Initiative** will increase by 17 percent over last year. This $679 million multi-agency initiative focuses on long-term research on the manipulation of matter down to the atomic and molecular levels, giving us unprecedented opportunities for new classes of devices as small as molecules, and machines as small as human cells.

- **Networking and Information Technology R&D** will increase by 3 percent. This brings the overall investment to $1.9 billion in this mature but still critically important area. It provides the base technologies to ensure that the U.S. maintains its dominant position in the application of information technology to critical national defense and national security needs, as well as to scientific research, education, and economic innovation.

- **Improving human health**. Health research draws on capabilities of many agencies. During the Presidential campaign, the President promised to double the budget of NIH by 2003 from its 1998 levels. That commitment is met in this budget, which includes the final installment of a $3.9 billion increase, paving the way toward better diagnostics, treatments, and cures that affect the lives of all Americans.

- **Climate Change** research has become an important driver for the Nation's research agenda. The President created two new initiatives in this budget, the Climate Change Research Initiative (CCRI) will receive $40 million to be shared among five agencies, and the National Climate Change Technology Initiative (NCCTI) will receive $40 million within the DOE budget. The ongoing U.S. Global Change Research Program (USGCRP) will receive $1.7 billion, a $44 million (3 percent) increase.

Highlights of Agency S&T Budgets

The following examples within the agencies under the jurisdiction of the Subcommittee will provide a brief snapshot of the Administration's S&T request in these agencies:

- **National Aeronautics and Space Administration (NASA).** The budget provides $8.7 billion (an 8 percent increase) for NASA's programs in the FS&T budget, including $3.4 billion for Space Science (a 13 percent increase), and $2.9 billion for Aero-space Technology, including planned increases in funding for NASA's Space Launch Initiative ($759 million), that will lead to safer and lower cost, commercial launch vehicles to replace the Space Shuttle.

- **National Science Foundation (NSF).** The budget provides a $241 million increase (5 percent) in the National Science Foundation. This increase will provide $678 million for NSF's lead role in the Networking and Information Technology R&D program, and $221 million for NSF's lead role in the National Nanotechnology Initiative. The President's Math and Science Partnerships Initiative, aimed at increasing the quality of math and science education in Grades K-12, will increase by $40 million to $200 million. The budget also raises graduate level stipends from $21,500 to $25,000 annually, in order to further attract and retain the most promising U.S. students into graduate level science and engineering. NSF is very effective at managing competitive research programs, and the budget proposes transferring to NSF programs that will benefit from their management. These programs are: Sea Grants from the National Oceanic and Atmospheric Administration, Water Quality Research from the U.S. Geological Survey, and Environmental Education from the Environmental Protection Agency.

- **Environmental Protection Agency (EPA).** The budget provides $797 million (a 6 percent increase) for EPA's programs in the FS&T budget. The EPA budget funds research that provides a sound scientific and technical foundation for environmental policy and regulatory decision-making. The budget includes $75 million for R&D in technologies and procedures to cope with future biological or chemical incidents.

In addition to the agencies that fall within your Subcommittee's jurisdiction Mr. Chairman, the two single largest R&D agencies, the Department of Defense and the National Institutes of Health, receive significant increases this year. The Department of

Defense R&D efforts increase $5.4 billion (an 11 percent increase) to $54.5 billion, and the National Institutes of Health budget increases by $3.9 billion (a 17 percent increase) to $27.3 billion, fulfilling the President's campaign commitment to double funding for NIH.

The President's Management Agenda:

In addition to funding these priority areas, the budget also emphasizes the effectiveness of the dollars spent. The budget includes an "agency scorecard," which is still at the experimental stage this year, at least for science budgets. If only one agency could achieve a green light, I am glad to see that it is the National Science Foundation. The President's Management Agenda is as relevant to science missions as to other agency operations, and I look forward to working with OMB to make its provisions a more useful tool for all the agencies.

In particular, among the provisions of the President's Management Agenda are investment criteria for research programs, pilot-tested at DOE this past year. In consultation with agencies, industry, and academia, OMB and OSTP will broaden the use of the criteria for applied research and to develop and apply separate investment criteria for basic research programs in 2004.

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Mr. Chairman and Members of the Subcommittee, I hope that this brief overview has conveyed to you the extent of this Administration's commitment to advancing science and technology in the national interest. I look forward to achieving bipartisan support for a national S&T strategy that will combine the resources of industry, academia, non-profit organizations, and all levels of government to protect our citizens, advance knowledge, promote education, strengthen institutions, and develop human potential.

I ask not only for your support for OSTP's Fiscal Year 2003 budget request, but also want you to know how much I appreciate the long-standing bipartisan support of the Committee for the Office of Science and Technology Policy and for the science and technology research enterprise. I would be pleased to answer any questions that you have.